

Identifying the Conflict between Religion and Science

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Abstract: *Inspired by Stephen J. Gould's NOMA thesis, it is commonly maintained among academic theists (and some atheists) that religion and science are not in conflict. This essay will argue, by analogy, that science and religion undeniably are in conflict. It will begin by quickly defining religion and science and then present multiple examples that are unquestionable instances of unscientific reasoning and beliefs and show how they precisely parallel common mainstream orthodox religious reasoning and doctrines. It will then consider objections. In essence, this article will show that religion and science conflict when religion encroaches into the scientific domain. But in closing, it will show that they might also conflict when science encroaches into domains traditionally reserved for religion.*

Keywords: Science, Religion, Stephen J. Gould, NOMA, Science-Religion Conflict, Petitionary Prayer, Miracles, Divine Intervention, Phlogiston, the Soul, Skeptical Theism, Sathya Sai Baba, Peter Medawar, The Limits of Science, Mythical Truth, Mystery Therefore Magic

Introduction

MANY, BOTH THEISTS AND atheists, acknowledge the conflict between religion and science. This includes New Atheists like Richard Dawkins¹ and also academic philosophers, such as John Worall² who argues that one cannot be both purely scientifically minded and religious. Others disagree. Stephen Jay Gould (1941–2002) for example, an agnostic, famously defended the NOMA thesis—the idea that science and religion cannot be in conflict because they are about non-overlapping magisteria.³ His sentiments have been echoed by academic philosophers, such as Del Ratzsch, who argues that the

¹ Richard Dawkins, “You Can’t Have It Both Ways: Irreconcilable Differences,” *Skeptical Inquirer* 23, no. 4 (1999): 62–64, <https://skepticalinquirer.org/1999/07/you-cant-have-it-both-ways-irreconcilable-differences/>.

² John Worall, “Science Discredits Religion,” in *Contemporary Debates in Philosophy of Religion*, ed. Michael Peterson and Raymond Vanarragon (Hoboken, NJ: Blackwell, 2004), 59–71.

³ Stephen Jay Gould, “Non-Overlapping Magisteria,” *Skeptical Inquirer* 23, no. 4 (1999): 55–61, <https://skepticalinquirer.org/1999/07/non-overlapping-magisteria/>.



conflict between science and religion is greatly exaggerated.⁴ Most recently, Alvin Plantinga reiterated this argument.⁵ If there is a conflict, Plantinga argues, it is only about minor ideas that are usually popular in small movements—like creationism, which is (according to Plantinga) only popular in certain Christian fundamentalist segments of America.

This is incorrect. Not only is creationism more popular than Plantinga realizes,⁶ but contrary to the conclusions of Gould, Ratzsch, and Plantinga, religion conflicts with science, *especially* regarding religious issues, doctrines, beliefs, and thought processes of major significance. This essay will demonstrate why. For brevity, it will concentrate on a few specific Christian doctrines that enjoy near universal agreement, and show how they are unscientific; but it will also be apparent how the argument could be applied to the doctrines of other religions. The argument will be made through analogy by explicating numerous classic examples of unscientific thinking and then showing how the thinking behind particular religious doctrines parallels the examples precisely. The essay will then consider objections.⁷ Mainly, we will see that religion and science conflict when religion encroaches into the scientific domain. But in conclusion, we will also see that they can conflict when science encroaches into domains traditionally reserved for religion.

But first, to understand where, why, and how science and religion conflict, both science and religion must be defined.

⁴ Del Ratzsch, “The Alleged Demise of Religion: Greatly Exaggerated Reports from the Science/Religion ‘Wars,’” in *Science and Religion in Dialogue*, ed. Melville Y. Stewart (Hoboken, NJ: Wiley, 2010), 69–84, <https://doi.org/10.1002/9781444317350.ch3>.

⁵ Alvin Plantinga, *Where the Conflict Really Lies: Science, Religion, and Naturalism* (New York: Oxford University Press, 2011), 65–90, doi.org/10.1093/acprof:oso/9780199812097.001.0001.

⁶ Most American Christians believe in some form of creationism or intelligent design, and creationism is becoming more commonplace in Islam. See Drake Bennett, “Islam’s Darwin Problem: In the Muslim World, Creationism is on the Rise,” *Boston Globe*, October 25, 2009, http://www.boston.com/bostonglobe/ideas/articles/2009/10/25/in_the_muslim_world_creationism_is_on_the_rise/.

⁷ My arguments to this effect first appeared in a three-part article for *Scientia Salon* (a blog edited by Massimo Pigliucci). See, David Kyle Johnson, “Identifying the Conflict between Religion and Science—Part I,” *Scientia Salon* (blog), April 8, 2014, <https://scientiasalon.wordpress.com/2014/04/08/identifying-the-conflict-between-religion-and-science-part-i/>.

Defining Science and Religion

What is religion? Gould suggests that religion is a system of beliefs regarding ethics and meaning only; this is why he thinks science and religion cannot conflict: they are about different things.⁸ Clearly, however, Gould's understanding of religion is inaccurate. He himself acknowledges that Christians make claims about the existence of the soul and God—both of which are metaphysical and ontological claims (not merely claims about ethics or “meaning”). In addition, Christians make claims about the past and present occurrence of physical events, including healing miracles and the resurrection of Jesus; these are clearly claims about the occurrence of events and the status of objects in the natural world (not claims about ethics or meaning).⁹ And, of course, other religions make similar claims. Obviously, this does not give us an all-encompassing definition of religion, which is ultimately illusive, but it will suffice for our purposes.¹⁰

Science is similarly misunderstood. The purview of science is not restricted to the lab. Observation and prediction are of course used but, as Thomas Kuhn taught us, science is fundamentally an exercise in abduction—inference to the best explanation.¹¹ Scientific progress is made by sifting through competing hypotheses and identifying the best one. Perhaps the

⁸ “The *lack of conflict* between science and religion arises from the *lack of overlap* between their respective domains of professional expertise—science in the empirical constitution of the universe, and religion in the search for proper ethical values and the spiritual meaning of our lives” (Gould, “Non-Overlapping Magisteria,” 56; italics in original).

⁹ See esp., Robert Greg Cavin and Carlos A. Colombetti, “The Implausibility and Low Explanatory Power of the Resurrection Hypothesis—With a Rejoinder to Stephen T. Davis,” *Socio-Historical Examination of Religion and Ministry* 2, no. 1 (Spring 2020): 37–94, <https://doi.org/10.33929/sherm.2020.vol2.no1.04>.

¹⁰ For a more detailed examination of the history and complexities of defining “religion,” see Jonathan Z. Smith, “Religion, Religions, Religious,” in *Critical Terms for Religious Studies*, ed. Mark C. Taylor (Chicago, IL: The University of Chicago Press, 1998), 269–84, <https://doi.org/10.7208/chicago/9780226791739.001.0001> and Jack David Eller, *Introducing Anthropology of Religion*, 2nd ed. (New York: Routledge, 2015), 1–26, <http://doi.org/10.4324/9781315740157>.

¹¹ Thomas Kuhn, *The Structure of Scientific Revolutions*, 3rd ed. (Chicago, IL: University of Chicago Press, 1996), <https://doi.org/10.7208/chicago/9780226458106.001.0001>. For a complete defense of the notion that science is driven by abduction, see Ernan McMullin, *The Inference that Makes Science* (Milwaukee, WI: Marquette University Press, 1992), <https://doi.org/10.1111/j.1467-9744.2012.01319.x> and David Kyle Johnson, “Inference to the Best Explanation and Avoiding Diagnostic Error,” in *Ethics and Medical Error*, ed. Fritz Allhoff and Sandra Borden (New York: Routledge, 2019), 243–61, <https://doi.org/10.4324/9780429266119-13>.

clearest articulation of the criteria for abduction is found in Theodore Schick and Lewis Vaughn's book, *How to Think about Weird Things*: testability, fruitfulness, scope, simplicity, and conservatism—the criteria of adequacy.¹²

- Testability: A hypothesis is testable if it makes novel observable predictions. If a hypothesis makes no observable or novel predictions beyond what the hypothesis was originally introduced to explain, then it is untestable and most likely unscientific.
- Fruitfulness: A hypothesis is fruitful if its predictions are correct. If a hypothesis makes incorrect predictions, it is unfruitful. If the hypothesis is already well-established, one might be able to rationally make testable alterations to the hypothesis to align it with the evidence.¹³ But it is unscientific to make *ad hoc* (non-testable) rationalizations to save a theory from the fact that it has made incorrect predictions.
- Scope: A hypothesis' scope is equivalent to its explanatory power. The more a hypothesis explains and unifies our knowledge, the better; a good scientific theory must increase our understanding, not raise more questions than it answers. Similarly, it should not invoke the inexplicable to explain the unexplained.
- Simplicity (or Parsimony): If a theory requires more entities or makes more assumption than other theories (that have the same merits), then it is not simple. To accept a theory over such simpler competitors, without adequate reasons, is unscientific.
- Conservatism: A theory is conservative if it aligns with what is already well established. If it conflicts with itself (i.e. it is logically inconsistent) or conflicts with what we already have good reason to think is true, then it is non-conservative and likely unscientific.

The theory that best fits these criteria is “the most adequate,” and the most unscientific move is to reject a more adequate theory for a less adequate one.¹⁴ Once a theory has been well-established as the most adequate, scientists often

¹² Theodore Schick and Lewis Vaughn. *How to Think About Weird Things*, 8th ed. (New York: McGraw Hill, 2020).

¹³ Scientists did this when Newton's theories did not predict Uranus' wobbly orbit. Instead of rejecting Newton, they hypothesized another planet that was gravitationally affecting Uranus. This was not *ad hoc* because it was testable—and that is how we discovered Neptune.

¹⁴ Of course, the best hypothesis will not always fit all five; furthermore, there is not always a single best hypothesis (e.g. when there are “ties” among competing hypotheses).

base their experimentation and observations on it and no longer question it without due cause.¹⁵ If numerous anomalies begin to conflict with the theory, it should be noted, it can then be subjected to the same criteria again, and potentially give way to a more adequate theory. This fuels scientific revolutions, such as when Albert Einstein's relativity replaced Newtonian mechanics. But such extreme exceptions aside, the scientifically minded person should always accept the most adequate explanation.

Scientific reasoning also understands and avoids logical fallacies. Take, for example, appealing to ignorance—concluding that an inability to prove something false is reason to think it is true, or an inability to prove something true is reason to think it is false. This is fallacious reasoning because, contrary to popular understanding, science does not prove or disprove anything. Every theory in science is confirmed to some greater or lesser degree; nothing in science is certain because no theory can ever be completely disconfirmed. To save a theory from falsification, one can always challenge assumptions in our background theories (i.e. one can always make excuses).¹⁶ Science can and does show where the preponderance of evidence lies and can, therefore, render other theories irrational—but it can disprove nothing. Thus, to believe something is true because it cannot be proven false, or to believe something is false because it cannot be proven true, is wholly unscientific. The latter occurs when one commits the “Mystery therefore Magic” fallacy—when one believes that an inability to think of a natural explanation is a good enough reason to appeal to a supernatural one.¹⁷

¹⁵ A theory may still be tweaked as time goes on, however—such as when the heliocentric view of the solar system was tweaked to include elliptical, instead of perfectly circular, planetary orbits.

¹⁶ This is mainly because of the Duhem–Quine thesis which tells us that a hypothesis can never really be tested in isolation because it always relies on some set of background assumptions. If one makes a prediction based on a hypothesis, but the prediction fails, to save the hypothesis one can always imbed it in a different set of background assumptions that alters what it predicts. For example, to defend against contrary evidence, flat earthers can challenge assumptions about the way light travels (see Schick and Vaughn, *How to Think About Weird Things*, 174–7). This is one reason why falsifiability is often challenged as a criterion for determining what counts as a scientific hypothesis. Technically, nothing is falsifiable. This is why it is important to realize that making *ad hoc* (non-testable) rationalizations to save a theory (as it were, capitalizing on the non-falsifiability of a theory to save it) is unscientific.

¹⁷ Having no proof that there is a natural explanation is not a good enough reason to think there is not one. Why? For one, we have made this mistake in the past, declaring “nothing else can explain this but the supernatural,” only to find an embarrassingly obvious natural explanation later (e.g. with lightening). But mainly, such reasoning is fallacious because it is more likely that the reason a person cannot think of a natural explanation is because *that person cannot think of one*—not because *there is not one*. For details, see David Kyle Johnson, “Mystery

It is also important to make clear something else that these statements reveal. Science is not deductive. It is not a method of reasoning by which one derives conclusions from an existing set of assumptions or data set. The validity of deductive arguments is mathematically provable, and the conclusions of sound deductive arguments are guaranteed by their premises. Science, instead, is inductive—a kind of reasoning where premises provide support for (but do not guarantee) conclusions. Science progresses by scientists using creativity to generate new hypotheses, testing and comparing them, and then accepting the best explanation. Since, technically speaking, the best considered explanation may not always be the correct one, science is, at its core, inductive. (And this is true, even though scientists might occasionally use deductive reasoning.)

It is also important to realize that scientific experimentation is set up to avoid the known inaccuracies and biases of human perception. Although our senses, memory, introspection, and reason can generate accurate beliefs, they are also fallible and can lead us to false beliefs and faulty conclusions (and do so far more often than we realize). This is why scientific tests have to be highly controlled and repeatable; science is designed to circumvent and thus avoid the influence of human bias, especially biases that are the result of our fallible senses, memory, and intuitive reasoning.¹⁸

Lastly, it is important to note that being *unscientific* is not the same as being *non-scientific*. To be unscientific is to believe something *despite* scientific evidence to the contrary. To be non-scientific, on the other hand, is merely to believe something *without* scientific evidence. And the latter does not necessarily involve faulty reasoning. In fact, since science does not exhaust all of rationality and is not applicable to everything, non-scientific beliefs are unavoidable. For example, belief it is wrong to torture babies for fun and that freedom is a fundamental human right do not have scientific evidence. But that does not make them irrational. In fact, science itself must rest on certain assumptions that cannot have scientific evidence, such as the reliability of induction and the truth of non-contradiction. Technically, such beliefs are non-scientific because one cannot give any argument for them without begging the question. But they are not *unscientific*, and they are not irrational.

Therefor Magic,” in *Bad Arguments: 100 of the Most Important Fallacies in Western Philosophy*, eds. Robert Arp, Mike Bruce, and Steve Barbone (Hoboken, NJ: Wiley-Blackwell, 2018), 189–82. <https://doi.org/10.1002/9781119165811>.

¹⁸ For details on how problems in biases, memory, and sense perception applies to supernatural claims, see Darren M. Slade, “Properly Investigating Miracle Claims,” in *The Case Against Miracles*, ed. John W. Loftus (United Kingdom: Hypatia Press, 2019), 114–47.

Now, many theists claim that religious beliefs are not unscientific, they are merely non-scientific. If so, there is no conflict between science and religion. But, as we will now see, many important religious beliefs are patently, and undeniably, unscientific—not just merely non-scientific.

Anecdotal Evidence and Petitionary Prayer

The variable nature of illness, the placebo effect, and a host of other factors make anecdotal evidence worthless in medicine. A sick person taking something (not already known to be an effective treatment), and subsequently improving in health is not good evidence that that what they took made them better. Of course, that person will likely conclude that the treatment worked; but to do so is monumentally unscientific. Something else could have made them better without them realizing it. They could be benefitting from the placebo effect. It could be that they were already on the mend. And this is true no matter how severe the illness or whether one can think of a natural explanation for why they improved. Only multiple, independent, double-blinded studies can establish beyond a reasonable doubt that a particular action or treatment has a causal effect on an illness.¹⁹

Religious persons, however, often use just such anecdotal reasoning when they declare that their petitionary prayers are responsible for real world effects (e.g. healing someone of an illness or injury). Indeed, such evidence is an important element of what the Vatican of the Catholic Church uses for canonization. Upon the report that someone was sick, prayed to a deceased Pope, and then improved, if no natural explanation for the recovery is forthcoming, they are likely to conclude that it was the deceased Pope who caused the recovery.²⁰ But for the same reasons just articulated above, the fact that someone improved after praying to a deceased Pope is not good evidence

¹⁹ Indeed, when so-called “miraculous” healings have been investigated by professionals, the result often turns out to be one of three causes: fraud, misdiagnosis, or misattribution of the actual (natural) causes and effects. See Peter May, “Claimed Contemporary Miracles,” *Medico-Legal Journal* 71, no. 4 (2003): 144–58, <http://doi.org/10.1258/rsmmlj.71.4.144>.

²⁰ For a rundown of miracles that are being claimed to be the result of prayers to Pope John Paul II, see John L. Allen Jr., “Vatican Announces May 1 Beatification for John Paul II,” *National Catholic Reporter* (blog), January 14, 2011, <https://www.ncronline.org/blogs/ncr-today/vatican-announces-may-1-beatification-john-paul-ii>.

that prayer (or the deceased Pope) made them better. And this is true even if one cannot identify the natural reasons for why they did get better.²¹

Such reasoning is a classic example of unscientific thinking—the same used by people who promote quack cures for diseases. Not only are such cases anecdotal, but “deceased Pope healings” are not simple (they have extra entities), they do not increase our understanding of reality (how did he do it?), they do not have wide scope (they explain nothing but that particular case), and are not conservative (they conflict with both biological knowledge²² and theological assumptions²³). Additionally, because they jump to a supernatural conclusion in the absence of a natural explanation, they commit the “mystery therefore magic” fallacy. Consequently, Christian belief in the effectiveness of petitionary prayer (and specifically the healing power of prayer to deceased Popes) is wholly unscientific.

Magic and Miracles

Celebrity illusionists, Penn Jillette and Raymond Teller, perform a “bullet catch” magic trick, where each appears to catch a fired gun bullet in their mouth. Some of the best magicians in the world cannot duplicate this

²¹ Interestingly, a survey of all scientifically-conducted medical experiments involving prayer has shown that those receiving prayer for a medical condition are more likely to *deteriorate* in health than to improve (Wendy Cadge, “Saying Your Prayers, Constructing Your Religions: Medical Studies of Intercessory Prayer,” *The Journal of Religion* 89, no. 3 (2009): 299–327, <http://doi.org/10.1086/597818>). Thus, if religious persons applied their logic consistently, then they would have to conclude that prayer is actually *detrimental* to your health, not beneficial.

²² The theory that the Pope, postmortem, cured a person of a disease assumes that the Pope still exists after his death. Since there has yet to be any universal bodily raising of the dead, the only Christian doctrine consistent with such a thing is the supposition that the Pope’s “soul” survived his death, exists in heaven, and is performing healing miracles from there. As we will see later, the hypothesis that a soul exists conflicts with the wealth of scientific knowledge that we have about the brain. The mental activity that is necessary for a person’s existence requires a functioning brain. The cessation of brain function entails the non-existence of the person.

²³ Theists most often assume that God is tri-omni—omniscient (all-knowing), omnipotent (all-powerful), and omni-benevolent (all-loving). By definition, such a being must know what the best thing to do is, be able to do it, and then want to do it. Consequently, if a certain person being healed of a disease (for example) is the best thing, then God was already going to make it happen. Likewise, if something is not the best thing (if the person not being healed is best), then God will not do it. No petitionary prayer could ever convince a tri-omni being to do anything that is not the best. Add to that the fact that God is also assumed to be immutable (non-changing), and the realization that a petitionary prayer is asking God to change from a less-than-perfect state to a more perfect state of benevolence, and it becomes doubly clear that the notion petitionary prayers can be effective healing practices actually conflicts with the theist’s own assumptions about God.

feat. If a person, however, concludes from this that Penn and Teller use supernatural powers to make the bullet disappear from the barrel of the gun and then reappear in between their teeth (after all, physically catching a fired bullet with your teeth is impossible), that person is being wholly unscientific. One is (again) committing the “mystery therefore magic” fallacy.

Unfortunately, many religious people regularly employ the same reasoning. When someone’s cancer spontaneously goes into remission, it is truly remarkable. Although it is known that such things do happen, most often not even doctors know why. Yet, even when no prayers have been said (that we know of), some religious persons will claim that the cause of the event is supernatural in origin. *God made the cancer disappear*. This conclusion is scientifically no different than concluding that Penn and Teller have real supernatural “magic” powers. This is simply a specific application of the mystery therefore magic fallacy—what we might call the “Mystery therefore God” (or the god-of-the-gaps) fallacy. It is, thus, wholly unscientific.

Problems with Probability and Divine Intervention

Suppose that you are thinking of someone you know, and then within five minutes you learn that they have died. “What are the chances of that?” you might think. “I must be psychic. What else could explain it?” If so, you are being wholly unscientific. Not only are you jumping to a supernatural conclusion, but you are misunderstanding basic probability. The chances that you would be thinking of that particular person right before you found out about their death are slim; but the chances that, at some point in your life, you’d be thinking of someone you know right before you found out about their death is pretty high.²⁴ Indeed, statistically, this happens to at least one person in America every day.²⁵ So there is no more need to invoke a psychic explanation any more than there is to explain why someone won the lottery. Although the probability that any one particular person will win is slim, the probability that someone will win is quite high. Eventually, someone is going to win—eventually, someone is going to be thinking of a friend right before

²⁴ Consider how often you think about your friends and just how many people you know. It is not unlikely at all that, eventually, one will die while you happen to be thinking about them. Of course, it would not happen often; but you would not remember all the times you were thinking of a friend and they did not die. Thinking about them right before they die is much more memorable.

²⁵ For more on this phenomenon, and the fallacies discussed, see the fifth chapter of Schick and Vaughn’s *How to Think About Weird Things*, esp. 149.

they died—so psychic powers are not necessary to explain why, even when it happens to be you. Perhaps nothing is more unscientific than to invoke a supernatural explanation when the natural explanation is already known.

With this in mind, consider that healing miracles are not the only kind of miracles that many religious people embrace. Mere fortunate happenstances are often interpreted as divine intervention, as well. As a prime example, consider the website, “Where was God on 9/11?,” where the following stories are mentioned as evidence of God’s miraculous work during the terrorist attacks of September 11, 2001:²⁶

As you might know, the head of one company survived 9/11 because he took his son to kindergarten.

Another fellow is alive because it was his turn to bring donuts.

Another lady was late because her alarm clock didn’t go off on time.

One was late as a result of being stuck on the NJ Turnpike because of an auto accident.

One more survivor missed his bus.

One spilled food on her clothes and had to take time to change.

One’s car wouldn’t start.

One went back to answer the telephone.

One had a child that dawdled and didn’t get ready as soon as he should have.

One couldn’t get a taxi.

The one that, [*sic*] struck me was the man who put on a new pair of shoes that morning, went to work by his usual way but before he got there, he developed a blister on his foot. So he stopped at a drugstore to buy a Band-Aid. That is why he is alive today.

Of course, it would be impossible to verify all these stories, but there really is no reason to doubt them. Given the number of people who worked in the twin towers, things like this—transportation hang-ups, dawdling children, pre-work errands, and phone calls—would have happened to people who worked there every day. And that is the point. None of these events require any kind of miraculous explanation; in fact, none of them are even unlikely. On the contrary, that such things would have happened to make people late for work every day is a near guarantee. Thus, such events do not need a supernatural explanation any more than someone winning the lottery. Perhaps the

²⁶ The following quotes come from Tess Haranda, “Where Was God On 9/11?,” accessed February 8, 2020, <http://www.swapmeetdave.com/United/Where.htm>.

probability of them happening to a specific person is low, but the probability that someone would have car trouble—that someone would get a blister, that someone’s child would dawdle—is a near guarantee. (After all, it had to have been someone’s turn to pick up donuts.)

Unfortunately, it is not just this website. Religious believers employ exactly this kind of unscientific thinking as “proof of God’s intervention” regularly. When something fortunate that is unlikely to happen to a specific person at a specific time occurs (perhaps they survived a car wreck), it is labeled a divine miracle. If they were thinking scientifically, they would realize that the occurrence of such an event is actually likely to happen to many people quite frequently; inevitably, it was going to happen to someone. But they are not thinking scientifically, and so they conclude that it was the work of a divine being. Again, perhaps nothing is more unscientific than to invoke a supernatural explanation when, in fact, none is needed.

Phlogiston and the Soul

Many scientists used to think that heat was the product of a material called phlogiston (or later caloric).²⁷ It flowed into objects to make them hot and out to make them cold. But when they tested for the existence of such a material, they did not find anything—objects weighed the same both hot and cold. In response, defenders of the theory insisted that phlogiston must be made of a material that, unlike all others, had no mass. Then it was discovered that heat is the result of the movement of molecules; in response, those who defended the phlogiston theory suggested that making molecules move is just how phlogiston makes objects hotter. But at that point it was clear: they were only making *ad hoc* rationalizations to save their theory; there was no need to continue to invoke phlogiston because it did not explain anything. Heat could be accounted for solely by the movement of molecules and atoms; all the explanatory work that phlogiston was supposed to have done was now accounted for by other means. Of course, one can never disprove the existence of phlogiston; for the reasons explicated above, one can always come up with more rationalizations. But, as we know, that is not a good reason to accept a theory. Phlogiston fell out of favor, and those who held onto the theory that it existed were being unscientific.

²⁷ There is actually a slight difference between phlogiston and caloric, but it is not relevant for the purposes of this example. I have glossed over some details here merely for the sake of simplicity.

Many used to explain our mental life and our ability to act in the world with reference to the soul—a substance that many believed was separable from the body in which thinking, emotions, and decisions occur. Borrowed from Plato, it was a prevailing theory throughout much of church history. Thomas Aquinas, for example, argued that the soul must exist because no bodily organ can be responsible for thinking (*STh.* I q.75 a.2).²⁸ But neuroscience then found that Aquinas was wrong; all of the things that the soul supposedly did—thinking, emotions, decisions, etc.—were accomplished through brain activity. They even found that when certain parts of the brain cease to function, specific mental functions cease to exist, as well. Some religious thinkers, aware of such evidence, simply changed theories (e.g. *making neurons fire is just how the soul interacts with the body*).²⁹ But the firing of neurons can be accounted for wholly by natural physical processes. There is no reason to introduce the soul into any theory—it does not explain anything.³⁰ All the explanatory work that was supposed to have been done by the soul is now accounted for by other means. Of course, one can never disprove the existence of the soul—one can always make excuses. But, as we know, that is not a good reason to accept such a theory. It fell out of favor in the scientific world, and those who hold onto it are being just as unscientific as those that still believed in phlogiston. Therefore, contrary to Gould’s suggestion that “souls represent a subject outside the magisterium of science,”³¹ in reality, continued belief in the existence of a soul is wholly unscientific.

Lizard Aliens and Skeptical Theism

Some people believe that super-intelligent extraterrestrials are secretly controlling every aspect of the world. David Icke has written multiple books on the topic.³² He professes evidence and knowledge of their existence, as well as

²⁸ Although, it should be noted, Aquinas did not define the soul in the same Platonic way as I did above. Regardless, the defense he offers for the soul’s existence is faulty.

²⁹ For the latest such defenses of the soul, see Mark Baker and Stewart Goetz, eds., *The Soul Hypothesis: Investigations Into the Existence of the Soul* (New York: The Continuum International Publishing Group, 2010).

³⁰ Of course, one can still believe in consciousness (i.e. mental activity). Many philosophers would suggest that our own mental activity is the one thing that we can be certain exists. What one cannot do however, without being wholly unscientific, is believe that consciousness is housed in a separable non-material substance. Mental activity is produced by, and dependent upon, the material brain.

³¹ Gould, “Non-Overlapping Magisteria,” 60.

³² See, for example, David Icke, *The Biggest Secret*, 2nd ed. (Isle of Wight, UK: David Icke Books, 1999).

knowledge of what they are like—they are lizards. Of course, they do not want us to know they exist, so they masquerade as human beings. But they are running the world, nonetheless. Skeptics of this theory point out that the world does not seem to be run by super-intelligent extraterrestrials. There is a noticeable lack of empirical evidence. But, of course, despite the fact that he has written multiple books on the subject, Icke simply claims we cannot fully understand the reasoning and rationale of our alien overlords. They are beyond our comprehension! Who knows what they want the world to look like, or what their ultimate goals are. So, the fact that it seems to us that the world is not run by lizard aliens is no reason to think it is not. A world run by lizard extraterrestrials is, Icke argues, indistinguishable from one run by humans, so he is justified in believing that it is run by lizard aliens.

Of course, such thinking is wholly unscientific. Not only is it disingenuous—if the aliens are so incomprehensible, how is Icke able to write so many books about them? But, like all conspiracy theories, it is untestable and unfalsifiable. Aliens run the world to make it look like it is run by humans, so if the theory is true, the world would look exactly like it would if the theory was false. And anything that did seem to be evidence against the theory would just be touted as evidence planted by the extraterrestrials to throw us off track, and thus claimed as evidence for the theory. As such, the theory is unfalsifiable. It is not merely that one can always make *ad hoc* rationalizations to save the theory (which one can do with any theory); the *ad hoc* excuses are built into the theory before one can even go out and look for evidence. The theory makes evidence irrelevant. It is, thus, unscientific.³³

Theists, of course, do not believe that lizard aliens are running the world. But many (if not most) theists believe that a superhuman agent is currently controlling the world, and that this deity is perfectly loving and powerful. And to do so, they have to make the same kind of unscientific assumptions as David Icke—like the doctrine of “divine hiddenness.” *God does not want humanity to know that he exists with any certainty, so he hides himself.* Atheists, of course, point to evil in the world as good evidence that there is no deity running the universe.³⁴ This is not the kind of universe a perfectly loving and

³³ In addition, it is not a preferable theory because it is not simple. It interjects far more entities than necessary for explanatory purposes—secret aliens, plots, and powers. In fact, it is more complicated than the thing it aims to explain: the organization of world powers. Moreover, the alien theory does not increase our understanding of reality. How do their powers work? How did the aliens arrive here? How can they alter their appearance? The purely human theory, however, leaves nothing unexplained. It is simpler and it is falsifiable.

³⁴ Natural evil specifically, which is in no way brought about by humans but is an inevitable result of the laws supposedly bequeathed upon the universe itself, poses a very serious

powerful being would create or would allow to remain unhindered. But one popular religious retort (also known as skeptical theism) is also similar to Icke's reasoning: *God works in mysterious ways. He is completely incomprehensible. One cannot understand his motivations or reasons or know what he really wants the world to look like. God is beyond us. And, thus, we are justified in believing that he exists and runs the world.*³⁵

It is worth making explicit exactly what is wrong with such reasoning. First, just like Icke's response, it is disingenuous. Countless tomes have been dedicated to describing what God wants and is like. It is a bit too convenient that, upon consideration of the problem of evil, God is suddenly too complicated to understand. Second, this line of reasoning is tortured: *the fact that it does not look like God runs the world is no reason to think that he is not.* By this logic, a world run by no one is indistinguishable from one that is run by God. This is wholly unscientific because, just like conspiracy theories, it is untestable and unfalsifiable. If God hides himself and runs the world in a way that is indistinguishable from a world run by no one, then no observation could ever be made to confirm the theory that he existed. In fact, anything—including the most horrendous evil (like the entire world being destroyed)—could be rationalized away with appeals to God's incomprehensibility. As such, skeptical theism makes theism unfalsifiable in the same way that conspiracy theories make their own beliefs unfalsifiable. It has *ad hoc* rationalizations built into the belief system. The theory makes evidence irrelevant and is, thus, unscientific, which in turn makes appealing to God's sovereignty unscientific.

Sathya Sai Baba and Jesus of Nazareth

In India, there was a man named Sathya Sai Baba (1926–2011) who claimed to be a man-god, the reincarnation of Sai Baba of Shirdi (who himself claimed to be an incarnation of Shiva). To reinforce his man-god status, he repeatedly performed “miracles” in front of giant crowds of people. The complete list is far too long to enumerate here, but it included healings, making objects appear from nowhere, miracles of “omniscience,”³⁶ turning water into petrol, and raising people from the dead. Eyewitnesses to, and even

problem for the existence of God. See David Kyle Johnson, “Natural Evil and the Simulation Hypothesis,” *Philo* 14, no. 2 (2011): 161–175, <https://doi.org/10.5840/philo201114212>.

³⁵ See for example, Stephen J. Wykstra, “The Humean Obstacle to Evidential Arguments from Suffering: On Avoiding the Evils of ‘Appearance,’” *International Journal for Philosophy of Religion* 16, no. 2 (1984): 73–93, <https://doi.org/10.1007/bf00136567>.

³⁶ For example, Sai Baba would catch people in lies where they say they are doing one thing, but he knows they are doing something else.

videos of, his miracles abound.³⁷ And many people pronounce their belief in him as a result. Both he and his followers have written about these miracles. And, although it is difficult to count his followers, they number in the millions.

Of course, Sai Baba is dead; so people today will no longer be able to see or investigate one of his “miracles” for themselves in person. But one can still come to a scientific conclusion about the legitimacy of his miracles and his claims. To do so, one must simply consider multiple hypotheses that account for the known evidence—the reports about (and video of) his miracles—and accept the most adequate one. One hypothesis is that he does, in fact, perform miracles because he is, in fact, a man-god. Another hypothesis is that he is a fraud. He used illusions and sleight of hand to trick gullible people. He took advantage of people’s ignorance to convince them of his divine status. He relied on uneducated Indians, who could easily mistake an illness for death, to believe an ill person resurrected after he touched them, when in fact the ill person was already going to make a natural recovery.³⁸ And, of course, some of the reports could simply have been made up—either exaggerated accounts of non-miraculous occurrences or fabrications out of whole cloth.

Which hypothesis is most adequate? The fraud hypothesis is clearly simpler—it involves no supernatural powers or god-like attributes. In addition, it is conservative (it coheres with what we already know about other magicians and faith healers), it increases our understanding, and answers more questions than it raises. If he is divine, we have no idea how his powers work; but we do know how magic tricks work. We also know that people often believe, and even see, what they want to believe—so it is not surprising that, even if his tricks were poorly done, people would have still believed. And this is true, even if you find videos of his “miracles” online and cannot explain them. The fact that one cannot figure out how a magician does his tricks is no good reason to think he really has magic powers. So, too, one’s inability to explain how Sai Baba does a “miracle” is no reason to think he is a god-man. We also know that illnesses and death are often misdiagnosed in many parts of the world, and we know that stories about charismatic people are most often exaggerated. The scientific hypothesis that is most adequate is obvious: Sai Baba was not a god-man. That is the best explanation and is, thus, beyond reasonable doubt.

Yet, change the name from “Sai Baba” to “Jesus,” and many theists will come to the exact opposite conclusion. The miracles that Jesus performed

³⁷ They can easily be found on online sources like YouTube.

³⁸ Given the number of sick people Sai Baba touched, this would have happened often. Of course, all the times Sai Baba touched someone but they did not rise from the dead would be forgotten.

have been (just like those of Sai Baba) performed by magicians for countless centuries. In fact, the evidence for Jesus' miracles and divine status is even weaker than the evidence for Sai Baba. We have living eyewitnesses and videos of Sai Baba's miracles. For Jesus, we only have second- and third-hand accounts, written by non-eyewitnesses thirty years after the fact.³⁹ First century Palestine had no hospitals, and even less education than those living in rural India. First century Palestinians were, thus, much more likely to mistake illness for death, spread false and exaggerated stories (and believe them), and be susceptible to the biases of expectation and wishful thinking, thereby seeing exactly what they wanted. Even the number of Sai Baba's followers and eyewitnesses during his lifetime is far greater than Jesus' own movement.

Obviously, there are at least two hypotheses to consider here: that Jesus was a god-man or that Jesus was a charismatic man about whom stories were fabricated or exaggerated. But clearly, the latter is the most scientifically adequate. In the same ways as before, it is simpler, more conservative, and answers more questions than it raises. Christian belief in the miracles, divine status, and resurrection of Jesus, therefore, is wholly unscientific.⁴⁰ And beliefs in other religions, about other miracle workers, are equally unscientific.

Responding to Objections

It was not the goal of this essay to suggest that all religious belief is unscientific; nor was it the goal to suggest that all religious people endorse all the arguments or believe all the doctrines that this essay has shown to be unscientific. Obviously, many individual religious people already reject one or more of them; as a group, religious people are diverse. But this does not mean that this essay's argument is wrong or inappropriate. The fact that the argument does not happen to apply to a specific person (or group) does not mean that it does not apply to others. Indeed, few researchers have shown that many of these unscientific beliefs are held by the majority of religious people today.⁴¹ Therefore, the essay's argument is relevant to the vast majority of religious believers.

³⁹ This speaks to the testability and fruitfulness of the "Jesus is a god-man" hypothesis, as well. One would expect firsthand eyewitness accounts written in Jesus' own language (and even by him) if Jesus were a legitimate miracle worker. There are none.

⁴⁰ Again, see Cavin and Colombetti, "The Implausibility and Low Explanatory Power of the Resurrection Hypothesis," 37–94.

⁴¹ Luis Lugo, *U.S. Religious Landscape Survey: Religious Affiliation; Diverse and Dynamic* (Washington, DC: Pew Research Center, Feb. 2008) 28, 31–32, accessed February 9, 2020, <https://www.pewforum.org/2008/02/01/u-s-religious-landscape-survey-religious-affiliation/>.

One goal of this essay is to show that one particular claim widely endorsed by atheists and the religious alike—the belief that there is no conflict between science and religion—is false. Many maintain that the important claims common among the religious are outside the purview of science; one can believe them without being unscientific. This essay has shown this to be false. Some of the most important and widely held religious beliefs (e.g. belief in miracles, the soul, and god-men) are undeniably unscientific—as unscientific as quack medicine, belief in magic, phlogiston, and lizard aliens. Such a conclusion may already be obvious to those who have rejected such religious beliefs, but such a conclusion is not trivial. Most religious people have not rejected such religious beliefs or realized their unscientific nature. With that in mind, it is worth considering a few common objections that might be made against the arguments in this essay:

First, one might suggest that somehow one's personal experience can render acceptance of a religious belief scientific—that it can provide a kind of evidence that renders the belief rational. Such arguments would most likely come from reformed epistemologists, like Alvin Plantinga, who might claim that something like the *sensus divinitatis* can provide non-propositional evidence for a religious belief that makes it rational and even scientific.⁴²

The problem with such a response is this: the idea that personal experience can trump evidence and adequacy is, itself, an unscientific suggestion.⁴³ What drives and motivates science is the realization that our personal experience is not always reliable, and is more often than we realize led astray. It is readily molded by our expectations and biases. As mentioned earlier, scientific reasoning is designed to counteract such things and has proven to be significantly more reliable than personal experience (especially when they are in conflict). To refuse to accept what is clearly the most adequate and reasonable hypothesis because of one's personal experience is, therefore, wholly unscientific. It is akin to someone continuing to believe in ghosts because "they saw one," despite the fact that their experience (and all others) has been completely accounted for in terms of natural phenomena. In short, if not even our own eyes can be trusted in the face of contrary scientific

⁴² See for example, Alvin Plantinga, *Warranted Christian Belief* (New York: Oxford University Press, 2000), 167–98, <https://doi.org/10.1093/0195131932.001.0001>.

⁴³ See esp., Jack David Eller, "Agnomancy: Conjuring Ignorance, Sustaining Belief," *Socio-Historical Examination of Religion and Ministry* 2, no. 1 (Spring 2020): 150–80, <https://doi.org/10.33929/sherm.2020.vol2.no1.07>.

reasoning, how much more should we therefore doubt something like the *sensus divinitatis*?⁴⁴

A second objection might come in the form of someone admitting that, although they are scientific the rest of their life, they choose to be unscientific when it comes to religious belief—and then claiming that it is “acceptable” or even rational to do so. This, it might be thought, is akin to methodological naturalism where one assumes nothing supernatural in the lab but allows for such possibilities in church.

The problems with this objection are twofold. First, it actually grants the essay’s conclusion; it admits that religious belief is unscientific. A person who makes this argument realizes that they cannot be religious while they are being scientific; that is why they choose to leave their scientific thinking “in the lab.” Second, the objection does not make clear why it is acceptable and rational to believe unscientific religious doctrines, but it is not acceptable and rational to believe other unscientific things. For example, those I have heard raise this objection are university science professors. As such, they are fundamentally opposed to people (especially their students) embracing unscientific beliefs—like climate change denial, belief in ghosts, UFOs, ESP, dowsing rods, astrology, creationism, intelligent design, the vaccine/autism link, parapsychology, conspiracy theories, Lizard aliens, Big Foot, and the Loch Ness Monster. But if it is rational for a science professor to believe, say, that Jesus rose from the dead despite the fact that it is unscientific, then why is it not rational for their students to embrace climate change denial, or believe in Bigfoot, despite the fact that it is unscientific? Without an argument that explains why, this objection fails.

A final objection could be the idea that this essay is attacking a straw man. “Of course,” one might object, “the common person’s religious beliefs are unscientific, but you have ignored the well thought out religious views of academic theologians and philosophers. Not until their religious beliefs are shown to be unscientific will it have been shown that religion and science are in conflict. After all, you would not criticize science based on the common person’s understanding of science. Likewise, you should not criticize religion based on the common person’s understanding of religion.”

There are essentially two problems with this objection:

First, the analogy is weak. Yes, science should not be criticized based on how the common person understands it; but the common person does not

⁴⁴ A similar point is made in Jeremy Randel Koons, “Plantinga on Properly Basic Belief in God: Lessons from the Epistemology of Perception,” *The Philosophical Quarterly* 61, no. 245 (2011): 839–50, <http://doi.org/10.1111/j.1467-9213.2011.709.x>.

practice science—they are not part of the scientific community and do not determine scientific consensus. The common religious person, on the other hand, is religious, practices religion, and is part of the religious community. They, therefore, help define what religious belief is and, thus, what may be legitimately criticized. The argument of this essay has not shown that the most academically sophisticated religious believers are unscientific. This much is true. But the essay cannot be attacking a straw man if it is attacking the views held by the majority of practicing religious believers.

Second, although I must admit that this is anecdotal, I know of no religious philosopher or theologian that actually rejects all the views this essay has shown to be unscientific. I know no Christian theologian, for example, that thinks petitionary prayer does nothing, and that souls do not exist, and that God does not interact with, intervene in, or control the world in any meaningful or important way, or that believes that Jesus performed no miracles and did not rise from the dead. Of course, if a theologian could be found that did reject all unscientific religious beliefs—perhaps they think that all religious language is non-literal or non-propositional and, thus, think that all such doctrines are not literally true but, instead, are “mythically true”—then the argument of this essay could not be used to show that their particular brand of religious belief is unscientific. But this has already been admitted. A religion that is only about ethics and meaning is merely non-scientific; it is not *unscientific*. Individual academics who reject the doctrines I have criticized can save themselves from the label “unscientific.” This is true. They cannot, however, save all of religion vicariously.

Conclusion: One More Conflict

Given the arguments we have considered, it is undeniable that the religious beliefs this essay has criticized are unscientific. And since they, or beliefs like them, are embraced by the majority of religious practitioners (including those outside of Christianity), it is undeniable that—contrary to the suggestions of Gould, Ratzsch, Plantinga, and a host of others—religion is, in very important and significant ways, unscientific. Again, not in every way; but it was only the goal of this essay to *identify* the conflict between religion and science. We can now see many places where that conflict lies.

The conflicts we have considered so far, however, have arisen primarily because religion encroached into the domain of science. To close, I would like to consider whether there might also be a conflict produced by science encroaching into (what is traditionally) the domain of religion.

In “The Limits of Science,” Peter Medawar argues that science cannot answer, what he calls, “ultimate questions.” For examples of such questions, Medawar lists:⁴⁵

How did everything begin?
What are we all here for?
What is the point of living?

And, if you ask me, he should have also included:

What is morally right and wrong?

The latter question is definitely outside the purview of science because the truthmakers of moral statements cannot be physical states of affairs. Of course, Sam Harris has argued that, by developing methods to scientifically measure pleasure and pain, science could determine which actions are morally right or wrong.⁴⁶ But that is true only if utilitarianism (the moral theory which defines right and wrong in terms of overall pleasure and pain) is the correct theory of ethics—and to establish that, you need a philosophic argument (not a scientific one). All in all, science can show you how to save the whales, but it cannot demonstrate that saving the whales is a moral good.

Something similar could be said about Medawar’s second and third questions, which seem to be about the meaning of life. While I would not deny that a life devoted to scientific knowledge is existentially meaningful, most would admit that questions about the meaning of life cannot be answered scientifically. Religion is not the only thing that can attempt to answer such questions, of course. (Philosophy also comes to mind.) And one might challenge the kind of answers religion tries to provide to them. But most scientists will openly admit that science cannot discover the meaning of life, or demonstrate that it even has one.

The same does not seem to be true, however, of Medawar’s first question: How did everything begin? It is not a question about meaning or ethics, and it does seem at least to be potentially answerable by science. Medawar does not think science can answer this question because of what he calls “The Law of Conservation of Information,” which states that no more information can be deduced from a data set than what it contains. From the axioms of geometry, Euclid’s theorems can be deduced; indeed, the theorems

⁴⁵ See P. B. Medawar, *The Limits of Science* (New York: Harper and Row, 1984).

⁴⁶ Sam Harris, *The Moral Landscape* (New York: Free Press, 2010).

are already contained in the data—Euclid just discerned them. But we could not deduce from that data how to, for example, bake a cake. That information is just not there. In the same way, Medawar argues, we could not deduce the answer to “How did everything begin” from natural data sets. The relevant information is simply not there. As Medawar argues,

Deduction merely makes explicit information that is already there....The propositions and observation statements of science have empirical furniture only: In epistemological principle, they have all to do with ships, shoes and sealing wax....[The] Law of Conservation of Information makes it clear that from observation statements or descriptive laws having only empirical furniture there is no process of reasoning by which we may derive theorems having to do with first and last things; it is no more easily possible to derive such theorems from the hypotheses and observation statements with which science begins than it is possible to deduce from the axioms and postulates of Euclid a theorem to do with how to cook an omelet or bake a cake.⁴⁷

But given what we have discussed, Medawar’s mistake is perhaps obvious. As was made clear in the first section, science is not a deductive reasoning method. It is inductive. Therefore, laws about the limits of deduction are irrelevant to the limits of scientific reasoning. Indeed, when doing science, one must generate multiple hypotheses and then compare them according to the criteria of adequacy. Since the process of hypothesis generation itself, as Medawar himself admits, requires imagination and creativity, it usually is not based on, and often goes beyond, the existing data. As Schick and Vaughn put it:

Although hypotheses are designed to account for data, they rarely can be derived from data....[so] scientific hypothesis often postulate entities that aren’t mentioned in the data. The atomic theory of matter, for example, postulates the existence of atoms. All of the data upon which the atomic theory rests, however, can be described without mentioning atoms. Since scientific hypotheses often introduce concepts not found in their data, there can be no mechanical procedure for constructing them.⁴⁸

⁴⁷ Medawar, *The Limits of Science*, 80–82.

⁴⁸ Schick and Vaughn, *How to Think About Weird Things*, 170.

Thus, contrary to Medawar, what scientists can propose as scientific answers for their questions is not confined or determined by the data they have to work with; and this is true even for questions like “How did everything begin?”

Indeed, at least one scientist has already proposed a scientific answer to that question. In quantum mechanics, the phenomena of vacuum fluctuations are common; particles of matter come into existence, uncaused, via random oscillations in the “quantum foam” (the background probability field that exists in the absence of matter). Ed Tryon has proposed that our universe is the product of a large-scale version of one of these fluctuations in the background space. According to him, this phenomenon is what caused the singularity from which the Big Bang emerged.⁴⁹ Since such things are bound to happen, our universe could simply be “one of those things which happen from time to time.”⁵⁰ Indeed, as Tryon makes clear, all known properties of the universe are consistent with this hypothesis. That does not, of course, make it true—but it does not have to be for this example to show that science can (and does) offer answers to questions like “How did everything begin?”

Of course, one could always press for further answers. “Where did the quantum foam come from? Why is there something rather than nothing?” And such a person could insist, “Surely science cannot answer those questions.” But for such answers, the scientist could just appeal to brute facts (“that is just the way things are”) and suggest that any further attempt at explanation would introduce assumptions or entities that demand more of an explanation, and raise more questions, than what is being explained.

Take the quantum foam, for example, which essentially is just an enteral probability field. It is, for all intents and purposes, endless nothingness. Anything else you invoked to explain it would require an explanation more than the foam itself—especially if you invoke an infinite being with infinite properties and powers, such as God.⁵¹ The same would be true if you rejected the foam and, instead, invoked God to explain the singularity from which the Big Bang emerged. Since the singularity is something that literally exists nowhere (in no space for no time), just about anything else you introduced to explain it would demand more of an explanation than the singularity itself.⁵²

⁴⁹ Edward P. Tryon, “Is the Universe a Vacuum Fluctuation?,” *Nature* 246, no. 5433 (1973): 396–97, <http://dx.doi.org/10.1038/246396a0>.

⁵⁰ *Ibid.*, 397.

⁵¹ Of course, the theist might say that God does not need an explanation because he has no beginning or ending; but then the same thing can be said of the quantum foam.

⁵² See Quentin Smith, “Simplicity and Why the Universe Exists,” *Philosophy* 71 (1997): 125–32, <https://doi.org/10.1017/s0031819100056680>.

To put it simply, if hypothesizing some uncaused thing is unavoidable, we might as well just cut out the middleman and make it the universe itself. Interjecting God just adds an extra inexplicable assumption; it thus lacks simplicity and does not increase our understanding. How did God create the universe? How do his powers work? Why did he do it? All of this is left unexplained, and so the God hypothesis has low scope.⁵³ The alternate naturalistic theory, however, specializes in explanatory power. Since the natural theory is simpler, testable, and answers more questions than it raises, it is the scientifically preferable theory. Belief in God, when couched as an explanation for the universe, is wholly unscientific.⁵⁴

None of this, by itself, entails that belief in God is irrational. Maybe there are other arguments for God that work. In some cases, it can be rational to have faith in something even without evidence—even, perhaps, if the belief is unscientific. These are metaphysical and epistemological questions that must be settled elsewhere. But they need not be settled here to realize that science could, potentially, answer some ultimate questions. And since answering such questions has traditionally been thought to be the purview of religion, to the extent that scientific answers to such questions conflict with existing religious ones (like “God did it”), we have one last example of where and how science and religion conflict.

⁵³ Schick and Vaughn liken this to explaining why a bridge collapsed by saying, “It was brought down by [an incompressible] gremlin with a [mysterious] ray gun” (Schick and Vaughn, *How to Think About Weird Things*, 198). Such answers do not expand our understanding of the situation nor do they help us build a better bridge in the future.

⁵⁴ For a more detailed argument for why God cannot be rationally invoked as an explanation for anything, see Theodore Schick, “Can God Explain Anything?,” *Think* 2, no. 4 (2003): 55–63, <http://dx.doi.org/10.1017/s1477175600000634>.

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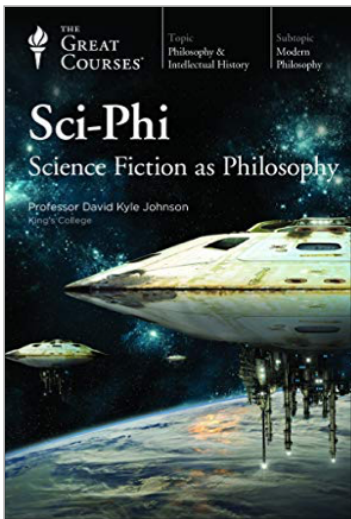
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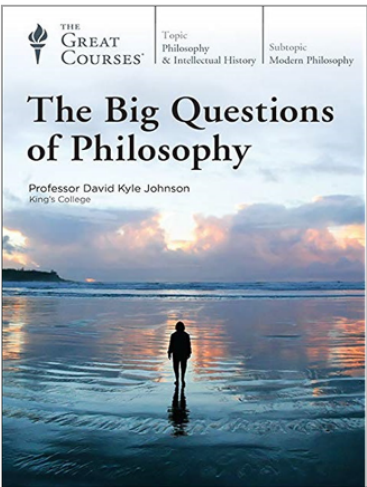
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